

Yuhang Zhu

(46) 760249445 zhuyuhang737@gmail.com
Uppsala
<https://github.com/Yuhang-Zhu-nlp>

EDUCATION

Uppsala University	Aug 2022 - Sep 2025
Language Technology (NLP) Master	Uppsala
Tianjin University	Aug 2017 - Jul 2021
English Studies Bachelor	Tianjin

PROFESSIONAL EXPERIENCE

Beijing Reworld Science and Technology Co., Ltd.	Jul 2018 - Aug 2018
Game Developer (intern)	Beijing
Developing mobile games on the company's game platform, Reworld.	

PROJECTS

Event Extraction Generative Large Language Models, RAG	Feb 2024 - May 2024
---	---------------------

This project aims to extract and classify events from ancient Chinese texts. We embedded training sentences into vector space and recalled them by the dot similarity of the input and the sentences for Retrieval-Augmented Generation (RAG). Then, we employed a Chinese generative LLM (Sichuan) to generate the result. This approach did not achieve a high score, which shows that it still needs to explore how to employ generative LLMs to sequence labeling tasks.

skills: LangChain, Generative LLMs, Peft

Machine Translation Data Augmentation, Generative Models	Sep 2023 - Nov 2023
---	---------------------

Supervisor: Meriem Beloucif Uppsala University

This project aims to **enhance the machine translation system from Swiss German sign language to German**. We merge data from Swiss French and Swiss Italian sign languages to boost the training data of Swiss German sign language by the truth that Swiss French and Swiss Italian sign languages are linguistically similar to Swiss German sign language. Our approach only **shows a small improvement over the baseline due to the still sparse data**.

skills: OpenCV, Fair-seq

Multilingual Detection Ensemble Learning, Multilingual Language Models	Sep 2023 - Dec 2023
---	---------------------

Supervisor: Joakim Nivre

This project is from SemEval-2024 shared task 4, aiming to identify persuasion techniques employed within meme texts in multiple languages. We designed a **multilingual bagging-based ensemble approach**, incorporating a soft voting strategy to effectively exploit the hierarchical structure of persuasion techniques. Our results achieved **the second position in Bulgarian and North Macedonian, fifth in Arabic, and eleventh in English**.

skills: Deep learning, Ensemble learning

Explanability Probing, LLMs	Mar 2024 - Present
--------------------------------------	--------------------

Supervisor: Joakim Nivre Uppsala University

This project is a **cross-linguistic study of constructions and strategies in multilingual models** that probed linguistic knowledge in multilingual models. By testing the zero-shot transfer ability on the probing task with XLM-RoBERTa, we **found that multilingual language models encode three types of linguistic information**, including language-specific information, strategy information, and function information.

skills: Machine learning, Pytorch, Transformers, Hugging Face, Sklearn

SKILLS

- **Programming Languages:** C/C++, Python, Lua, Javascript
- **Tools:** Pytorch, Numpy, Pandas, Matplotlib, Transformers, Langchain, Peft, OpenCV, Sparql
- **NLP Skills:** Machine Learning, Large Language Models, Text Mining, Retrieval-Augmented Generation, Prompt Learning

HONORS & AWARDS

Third position in Huawei Sweden Hackathon 2023	2023/12/02
--	------------